

4 (currently amended): Method of claim 1, wherein said electrical pulses are applied provided on to said the vagus nerve(s) at a level above the diaphragmatic level in a patient.

5 (currently amended): Method of claim 1, wherein said electrical pulses are applied provided on to said the vagus nerve(s) at a level below the diaphragmatic level in a patient.

6 (currently amended): Method of claim 1, wherein said electrical pulses are applied provided with two separate said implanted stimulators to said both (left and right) vagus nerve(s).

7 (currently amended): Method of claim 1, wherein said electrical pulses are applied provided with one said implanted stimulator to said both (left and right) vagus nerve(s).

8 (currently amended): Method of claim 1, wherein said electrical pulses further comprises at least one variable component selected from the group consisting of the current output, pulse width, pulse frequency, pulse amplitude, and on-off timing sequence.

9 (currently amended): Method of claim 1, wherein ~~said implanted stimulator is programmed with an external programmer~~ an external programmer programs said implanted stimulator.

10 (currently amended): Method of claim 1, wherein ~~said implanted stimulator is programmed with a magnet~~ a magnet programs said implanted stimulator.

11 (currently amended): Method of claim 1, wherein said external stimulator further comprises a telemetry unit for ~~is wirelessly networked with~~ bi-directional communications.

12 (currently amended): Method of claim 11, wherein said telemetry unit further provides bi-directional communications for at least one of patient billing and invoicing, patient monitoring and management, communicating with other computers ~~and the like~~.

13 (currently amended): Method of claim 1, wherein said external stimulator further comprises telemetry ~~means~~ unit for to remotely controlling said electrical pulses provided by ~~delivered by~~ said external stimulator to a patient.

14 (currently amended): Method of claim 1, wherein said implanted stimulator further comprises rechargeable power source ~~capable of being recharged via an external power source~~.

15 (currently amended): A method of providing pulsed electrical stimulation to one or both vagus nerve(s) and/or its branches ~~of~~ in a patient ~~near the diaphragmatic region~~, for providing therapy for at least one of neurological disorders, neuropsychiatric disorders, obesity and eating disorders, comprising the steps of:

- a) providing at least one implanted stimulator, wherein said implanted stimulator comprises an implanted pulse generator module and an implanted stimulus-receiver module;
- b) providing an external stimulator for inductively coupling to said implanted stimulus-receiver module;
- c) providing ~~controlling means~~ control circuitry for selectively operating one of said implanted pulse generator module ~~and or~~ said implanted stimulus-receiver module; ~~and~~
- d) providing at least one implanted lead in electrical contact with said implanted stimulator, and at least one electrode in contact with said vagus nerve(s)[,] ; and
- e) providing electrical pulses from either said implanted pulse generator module or external stimulator to said at least one electrode in contact with said vagus nerve(s) and/or its branches.

~~whereby electric stimulation is provided to said vagus nerve(s).~~

16 (currently amended): Method of claim 15, wherein further said neurological disorders and neuropsychiatric disorders comprises at least one of partial complex epilepsy, generalized epilepsy, involuntary movement disorders caused by Parkinson's disease, migraines, neurogenic pain, depression, Alzheimer's disease, anxiety disorders, obsessive compulsive disorders, ~~and the like.~~

17 (currently amended): Method of claim 15, wherein said external stimulator is further used for optimizing doage of said electrical pulses provided to a patient ~~utilized to determine optimal dosage of said pulsed electrical stimulation to be provided to a patient.~~

18 (currently amended): Method of claim 15, wherein said electrical pulses ~~further pulsed electrical stimulation~~ comprises at least one variable component selected from the group consisting of current output, pulse width, pulse frequency, pulse amplitude and on-off timing sequence.

19 (currently amended): Method of claim 15, wherein an external programmer programs said implanted stimulator ~~is programmed with an external programmer.~~

20 (currently amended): Method of claim 15, wherein a magnet programs said implanted stimulator ~~is programmed with a magnet.~~

21 (currently amended): Method of claim 15, wherein said external stimulator further comprises a telemetry unit for ~~is wirelessly networked with bi-directional communications.~~

22 (currently amended): Method of claim 21, wherein said telemetry unit ~~further provides~~ bi-directional communications for at least one of patient billing and invoicing, patient monitoring and management, communicating with other computers ~~and the like.~~

23 (currently amended): Method of claim 15, wherein said external stimulator further comprises telemetry ~~means~~ unit for ~~to~~ remotely controlling said electrical pulses provided by ~~delivered by~~ said external stimulator to a patient.

24 (currently amended): Method of claim 15, wherein said implanted stimulator further comprises rechargeable power source ~~capable of being recharged via an external power source.~~

25 (withdrawn): A system for providing electrical pulses to one or both (left and right) vagus nerve(s) of a patient to provide therapy for at least one of obesity and eating disorders, comprising:

a) at least one implantable stimulator, wherein said implanted stimulator comprising a pulse generator module and a stimulus-receiver module;

b) an external stimulator adapted to be inductively coupled to said stimulus-receiver to provide electrical pulses;

c) controlling means to selectively operate one of said implanted pulse generator module and said stimulus-receiver module; and

d) at least one implanted lead with at least one electrode in contact with said vagus nerve(s);

whereby said pulsed electrical stimulation is provided to said vagus nerve(s).

26 (withdrawn): System of claim 25, wherein said electrical stimulation is applied at any level along the length of said vagus nerve(s) and its branches.

27 (withdrawn): System of claim 25, wherein said electrical pulses are applied to said vagus nerve(s) at above the level of the diaphragm in a patient.

28 (withdrawn): System of claim 25, wherein said electrical pulses are applied on said vagus nerve(s) at below the level of diaphragm in a patient.

29 (withdrawn): System of claim 25, wherein said electrical pulses are applied with separate said implanted stimulators to said left and right vagus nerves.

30 (withdrawn): System of claim 25, wherein said electrical pulses are applied to both left and right vagus nerves with one said implanted stimulator.

31 (withdrawn): System of claim 25, wherein said pulsed electrical stimulation comprises at least one variable component selected from the group consisting of the current output, pulse width, pulse frequency, pulse amplitude and on-off timing sequence.

32 (withdrawn): System of claim 25, wherein said implanted stimulator is programmed with a magnet.

33 (withdrawn): System of claim 25, wherein said implanted stimulator is programmed with an external programmer.

34 (withdrawn): System of claim 25, wherein said external stimulator is wirelessly networked with bi-directional communications.

35 (withdrawn): System of claim 34, wherein said bi-directional communications is used for at least one of patient billing and invoicing, patient management and monitoring, communicating with other computers, and global positioning system for patient location.

36 (withdrawn): System of claim 25, wherein said external stimulator further comprises telemetry means for remotely controlling said electrical pulses that are delivered by said external stimulator.

37 (withdrawn): System of claim 25, wherein said implanted pulse generator further comprises rechargeable power source capable of being recharged via an external power source.

38 (cancelled)

39 (cancelled)

40 (cancelled)

41 (cancelled)

42 (cancelled)

43 (cancelled)

44 (cancelled)

45 (cancelled)

46 (cancelled)

47 (currently amended): Method of providing electrical pulses to one or both vagus nerve(s) and/or its branches in a patient, comprising the steps of:

a) providing ~~at least one~~ an implantable stimulator, wherein said implanted stimulator comprises a pulse generator module and a stimulus-receiver module;

b) providing an external stimulator for inductively coupling to said stimulus-receiver and further comprising ~~means to be wirelessly networked~~ a network telemetry unit for bi-directional communications for at least one of patient billing and invoicing, patient management and monitoring, communicating with other computers, remotely controlling said electrical pulses delivered by said external stimulator to a patient, global positioning for patient location ~~and like;~~

c) providing controlling circuitry ~~means~~ to selectively operate one of said implanted pulse generator module and said stimulus-receiver module; ~~and~~

d) providing at least one implanted lead with at least one electrode in contact with said vagus nerve(s) [,] ; and

e) providing electrical pulses from either said implanted pulse generator module or external stimulator to said at least one electrode in contact with said vagus nerve(s) and/or its branches[,]

~~whereby said electric pulses neuromodulate said vagus nerve(s).~~

48 (currently amended): Method of claim 47 wherein said electric pulses are provided to said vagus nerve(s) and/or its branches for therapy for at least one of neurological disorders, neuropsychiatric disorders, obesity and eating disorders.

49 (withdrawn): A system for practicing a method of providing electrical pulses to one or both vagus nerve(s) and/or its branches in ~~of~~ a patient to provide therapy for at least one of obesity, and eating disorders, comprising:



a) at least one implanted stimulator, wherein said implanted stimulator ~~comprising~~ comprises an implanted pulse generator module and an implanted stimulus-receiver module;

b) an external stimulator adapted to be inductively coupled to said implanted stimulus-receiver module; and

c) controlling means to selectively operate one of said pulse generator module and said stimulus-receiver module; and

d) at least one implanted lead in electrical contact with said implanted stimulator, and at least one electrode adapted to be in contact with said vagus nerve(s),

whereby said electrical pulses provided to vagus nerve(s) provides therapy for said at least one of obesity, and eating disorders.

50 (withdrawn): System of claim 49, wherein said electrical pulses comprises at least one variable component selected from the group consisting of the current output, pulse width, pulse frequency, pulse amplitude and on-off timing sequence.

51 (withdrawn): System of claim 49, wherein said electrical pulses are provided at any level along the length of said vagus nerve(s) and its branches.

52 (withdrawn): System of claim 49, wherein further a magnet can program said at least one implanted stimulator ~~is programmed with a magnet~~.

53 (withdrawn): System of claim 49, wherein further an external programmer can program said at least one implanted stimulator ~~is programmed with an external programmer~~.

54 (withdrawn): System of claim 49, wherein said external stimulator further comprises a telemetry unit ~~is wirelessly networked~~ for bi-directional communications.

55 (withdrawn): System of claim 54, wherein said telemetry unit provides bi-directional communications ~~is used~~ for at least one of patient billing and invoicing,

patient management and monitoring, communicating with other computers, and global positioning system for patient location.

56 (withdrawn): System of claim 49, wherein said external stimulator further comprises said telemetry ~~means~~ unit for remotely controlling said electrical pulses delivered by said external stimulator.

57 (withdrawn): System of claim 49, wherein said at least one implanted pulse generator further comprises rechargeable power source ~~capable of being recharged via an external power source.~~